AYDIN DISPLAYS

a sparton company

User's Guide

Rack Mount Models (VFP19R2)
Panel Mount Models (VFP19P1/P2)
Stainless Steel Models (VFP19S4)
VESA Mount Models (VFP19W2)

Touch Options: Resistive, Capacitive, SAW

Model VFP19
19.0-INCH AMLCD FLAT PANEL COLOR MONITOR

Replaces: VFP19 Series 301, 501, 701 VFP18 Series 001, 101

Document No. 150-VFP19-003 Rev. 0.2a, July 2014

NOTICE

This manual is subject to change without notice and should not be construed to be a commitment in any form by Aydin Displays.

Aydin Displays reserves the right to make improvements to the product at any time. It is understood that the delivered product will be of the latest possible design and that it may not be exactly as stated herein. This manual may contain descriptions of functions not implemented at time of distribution, unless prior contractual arrangements have been made.

Aydin Displays reserves the right to modify or revise the content of this manual. It is further understood that in consideration of the receipt or purchase of this manual, the recipient or purchaser agrees not to reproduce, disseminate the information herein, or copy it by any means whatsoever, nor to permit such actions by others, for any purpose, without the written permission of Aydin Displays.

All trademarks and registered trademarks are recognized as the property of their respective owners.

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS UNLESS THE PRONGS CAN BE FULLY INSERTED.
DO NOT OPEN THE CABINET. THERE ARE HIGH VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK, NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may be large enough to cause electric shock. Therefore, it is dangerous to touch any part inside the unit.

This symbol alerts the user that important literature about the operation and maintenance of this unit has been included. Read it carefully to avoid any problems.

PRODUCT SAFETY PRECAUTIONS

- The socket-outlet of power supply shall be installed near the equipment and shall be easily accessible.
- Follow all warnings and instructions marked on the display.
- Do not attempt to service this display yourself. There are no user replaceable parts inside and removing the display cover or back will expose you to dangerous voltage or other risks. Refer all servicing to qualified service personnel.
- Adequate ventilation must be maintained to ensure reliable and continued operation and to protect the display from overheating. Do not block ventilation slots and openings or install the display in a place where ventilation may be hindered.
- To protect from electrical shock, unplug the display's power supply from the wall outlet before relocating.
- Do not expose this display to direct sunlight or heat. Hot air may cause damage to the cabinet and other parts.
- This display should be operated from the type of power source indicated on the display's rating label.
- Do not allow metal pieces or objects of any kind to fall into the display through the ventilation holes.
- Do not use this display near water.
- Do not place any heavy objects on the power cord. Damage to the cord may cause shock or fire.
- When operating the LCD monitor with its AC 220-240V power supply, use a power cord that matches the power supply voltage of the AC outlet being used. The power supply cord you use must have been approved by and comply with the safety standards of your country.
- In UK, use a BS-approved power cord with molded plug having a black (5A) fuse installed for use with this monitor.
- Unplug this display's power supply from the wall outlet and refer servicing to qualified service personnel in the event that:
    - Power cord or plug is damaged or frayed.
    - Liquid is spilled into the display or the display is exposed to rain or water.
    - The display does not operate normally when the operating instructions are followed.
    - The display has been dropped or the cabinet damaged.
    - The display exhibits a distinct change in performance, indicating a need for service.

Thank you for purchasing the Aydin Displays VECTOR Display.

This carton contains the items listed below:

- VFP19 LCD Display
- Power cord
- Video signal cable (HD15 male HD15 male)
- DVI Video Cable DVI-D (M) to DVI-D (M)
- Touch accessories (if applicable)
- Mounting hardware (if applicable)
- Product CD containing:
    - This User's Guide
    - Warranty Guide

Please check the carton and its content for damage that may have occurred during shipment.

Report any damage to the shipping agent immediately and do not operate the display if it appears to have been damaged. All warranty returns must use the original shipping carton and packaging materials to prevent shipping damage.

Table of Contents

1 INTRODUCTION 1

2 SPECIFICATIONS 1

2.1 INPUTS 1
2.1.1 Power 1
2.1.2 DVI 1
2.1.3 Analog R-G-B 1
2.1.4 Composite Video 2
2.1.5 S-Video 2
2.1.6 RS232 Touch Panel Interface 2
2.1.7 USB Touch Panel Interface 2

3 FRONT PANEL BUTTONS/ON-SCREEN DISPLAY 3

3.1 FRONT PANEL BUTTONS 3
3.1 MAIN MENU 3
3.1.1 Input Select – Main Picture Channel 4
3.1.2 Input Select – Scan Inputs 4
3.1.3 Input Select – PIP Mode 5
3.1.4 Input Select – PIP Channel 5
3.1.5 Input Select - PIP ver. Position 6
3.1.6 Input Select – PIP hor. Position 6
3.1.7 Input Select – Swap Main & PIP 6
3.2 IMAGE ADJUSTMENTS 6
3.3 COLOR ADJUSTMENT 7
3.3.1 Color Adjustment – Advanced 7
3.4 VIDEO SETTINGS 8
3.4.1 Video Settings – Decoder Settings 8
3.5 SCALING ADJUSTMENTS 9
3.5.1 Scaling Adjustments - Scaling Mode 9
3.5.2 Scaling Adjustments - Picture Flip 9
3.5.3 Scaling Adjustments – Zoom and Pan 9
3.6 SYSTEM SETTINGS 10
3.6.1 System Settings - OSD Timeout 10
3.6.2 System Settings – OSD Hor. Pos. & Ver. Pos. 10
3.6.3 System Settings – OSD Blend 10
3.6.4 System Settings – OSD Orientation 10
3.6.5 System Settings – OSD Language 10

4 MAINTENANCE 11

4.1 PREVENTIVE MAINTENANCE 11
4.2 TROUBLESHOOTING (NO PICTURE) 11

5 CUSTOMER SERVICE CONTACT INFORMATION: 11

6 TOUCH-SCREEN DRIVER INFORMATION 12

7 VECTOR 19 SPECIFICATIONS 13

8 OUTLINE DRAWINGS 15

1 Introduction

The Model VFP19 AMLCD Monitor is a 19.0-IN diagonal display with a native resolution of 1280 x 1024 (SXGA) pixels. It is available in two brightness levels, a standard brightness level of 300 nits typical or a high brightness level of 520 nits typical. Inputs are provided for DVI-D, VGA, Composite (NTSC, PAL or SECAM) Video, and S-Video (NTSC, PAL or SECAM). Generally, all VESA compatible video formats are supported.

2 Specifications

2.1 Inputs

2.1.1 Power

VFP19 models are available to operate from AC or DC input power: 120/240 AC power version and a 10-36 VDC power version.

2.1.1.1 AC Input

Connector: IEC 60320 C14

Input Voltage: Universal AC Input Range 90-264 VAC

Input Frequency: 47-63 Hz

Input Power: 24.2 W

2.1.1.2 10-36 VDC input

Connector:	Monitor: Molex 42179 Plug Housing Power Cord: Molex # 03-12-1026 Connector with two # 18-12-1222 Female Terminals for 16-18 AWG Wire
Pinout:	Pin 1 is +VDC (Red Wire) Pin 2 is Power Ground (Black Wire)
Input Voltage:	10 – 36 VDC
Input Power:	25 W

2.1.2 DVI

Connector:	Single-Link DVI-D
Bandwidth:	Supports up to 160 Mhz operation.

2.1.3 Analog R-G-B

Connector:	HD15 female (Standard VGA pin-out)
Bandwidth:	Supports up to 165 MHz (UXGA 60 Hz)
Synchronization:	Supports separate H & V sync, separate composite sync, and sync on green.

2.1.4 Composite Video

Connector: RCA Jack

Supports NTSC, PAL or SECAM

2.1.5 S-Video

Connector: 4-Pin mini-DIN (Standard S-Video pin-out)

Supports NTSC, PAL or SECAM

2.1.6 RS232 Touch Panel Interface

If the RS232 and USB Touch interfaces are connected at the same time, the USB overrides the RS232 interface.

Connector: DB9-F Jack

Supports RS232 9600 baud, none parity, 8 data bits, 1 stop bit

2.1.7 USB Touch Panel Interface

Connector: USB-B Jack

Supports USB 2.0 full speed

3 Front Panel Buttons/On-Screen Display

3.1 Front Panel Buttons

Press MENU/SELECT button to display the On-Screen-Display (OSD). Use the + and – buttons to move the cursor to the desired menu selection and press the MENU/SELECT button to access the adjustment or function. With the EXIT button you can exit the current function and go back to the previous menu point.

With the OSD off, the +, - and EXIT buttons are 'HOT' buttons. The + and – buttons adjust the brightness of the LED backlight from full ON to OFF. The EXIT button performs an Auto Adjust function.

3.1 Main Menu

The OSD always starts with the Main Menu.

Main Menu		
Input Select Image Adjustments Color Adjustment Video Settings Scaling Adjustments System Settings	Main Picture Channel Scan Inputs PIP Mode	Main picture channel 1280x1024p@60hz

3.1.1 Input Select – Main Picture Channel

Selects the input source for the Main Picture.

Main Menu		
Input Select	Main Picture Channel	VGA
Image Adjustments	Scan Inputs	Component
Color Adjustment	PIP Mode	√DVI
Video Settings		S-Video
Scaling Adjustments		Composite Video
System Settings		

3.1.2 Input Select – Scan Inputs

When Scan Inputs is on, the Main Display will be the first active input.

Main Menu		
Input Select	Main Picture Channel	
Image Adjustments	Scan Inputs	Off
Color Adjustment	PIP Mode	√On
Video Settings		
Scaling Adjustments		
System Settings		

3.1.3 Input Select – PIP Mode

Selects for a single Main Picture, a Picture in Picture (PIP) or Side by Side in the same fixed size.

Main Menu		
Input Select	Main Picture Channel	
Image Adjustments	Scan Inputs	
Color Adjustment	PIP Mode	√Off
Video Settings	PIP Channel	Small
Scaling Adjustments	PIP hor. Position	Medium
System Settings	PIP ver. Position	Large
	Swap Main & PIP	Side by Side

3.1.4 Input Select – PIP Channel

Any input not selected for the Main Picture can be selected for the PIP.

Main Menu		
Input Select	Main Picture Channel	
Image Adjustments	Scan Inputs	
Color Adjustment	PIP Mode	√VGA
Video Settings	PIP Channel	Component
Scaling Adjustments	PIP hor. Position	DVI
System Settings	PIP ver. Position	S-Video
	Swap Main & PIP	Composite Video

3.1.5 Input Select - PIP ver. Position

Adjusts vertical position of PIP.

Main Menu		
Input Select	Main Picture Channel	
Image Adjustments	Scan Inputs	
Color Adjustment	PIP Mode	
Video Settings	PIP Channel	
Scaling Adjustments	PIP hor. Position	
	PIP ver. Position	
	Swap Main & PIP	60

3.1.6 Input Select – PIP hor. Position

Adjusts horizontal position of PIP.

3.1.7 Input Select – Swap Main & PIP

Each time Swap Main & PIP is selected the input signals for the Main and PIP are switched.

3.2 Image Adjustments

The adjustments provided on the Image Adjustments sub-menu only affect the Main Picture channel, not the PIP. Auto Adjust is pattern sensitive and may not give consistent results.

Main Menu		
Input Select	Auto Adjust	
Image Adjustments		
Color Adjustment	Clock	
Video Settings	Phase	
Scaling Adjustments	Bandwidth	
System Settings	Hor. Position	
	Ver. Position	

3.3 Color Adjustment

The adjustments provided on the Color Adjustment sub-menu only affect the Main Picture Channel, not the PIP, and is only available when VGA is selected for the Main Picture Channel input. It is recommended that all Color Adjustment parameters be left at factory default. Auto Color Adjust is pattern sensitive and may not give consistent results.

Main Menu		
Input Select	Brightness	
Image Adjustments	Contrast	
Color Adjustment	Saturation	
Video Settings	Hue	
Scaling Adjustments	Fleshtone	
System Settings	Backlight	
	Auto Color Adjust	
	Advanced	

3.3.1 Color Adjustment – Advanced

Main Menu		
Input Select	Gamma	
Image Adjustments	Color Space	
Color Adjustment	Color Temp.	
Video Settings	Red	
Scaling Adjustments	Green	
System Settings	Blue	

3.4 Video Settings

This sub-menu is only available when S-Video or Composite Video is selected as the Main Picture Channel input.

Main Menu		
Input Select	Motion Processing	
Image Adjustments	Sharpness	
Color Adjustment	Film Mode	
Video Settings	Noise Reduction	
Scaling Adjustments	Mpeg Processing	
System Settings	Decoder Settings	

3.4.1 Video Settings – Decoder Settings

Main Menu		
Input Select	Video Brightness	
Image Adjustments	Video Contrast	
Color Adjustment	Video Saturation	
Video Settings	Video Hue	
Scaling Adjustments	Video Sharpness	
System Settings		

3.5 Scaling Adjustments

The adjustments provided on the Scaling Adjustments sub-menu only affect the main Picture channel, not the PIP.

Main Menu		
Input Select	Scaling Mode	
Image Adjustments	Picture Flip	
Color Adjustment		
Video Settings	Zoom	
Scaling Adjustments	Hor. Pan	
System Settings	Ver. Pan.	

3.5.1 Scaling Adjustments - Scaling Mode

The Scaling Modes are Expand, Stretch, Aspect and 1:1. Expand is the default.

3.5.2 Scaling Adjustments - Picture Flip

Allows you to flip the Main Picture horizontal or vertical.

3.5.3 Scaling Adjustments – Zoom and Pan

Allows you to magnify and display any portion of the main picture.

3.6 System Settings

Main Menu		
Input Select	OSD Timeout	
Image Adjustments	OSD Hor. Pos.	
Color Adjustment	OSD Ver. Pos	
Video Settings	OSD Blend	
Scaling Adjustments	OSD Orientation	
System Settings	OSD Language	
	Reset to Default	

3.6.1 System Settings - OSD Timeout

OSD Timeout default is 30-seconds. Time should be set between 5 and 60-seconds. Setting the value to 0 will cause the OSD to permanently stay on.

3.6.2 System Settings – OSD Hor. Pos. & Ver. Pos.

Positions the OSD. Default is center screen.

3.6.3 System Settings – OSD Blend

Sets the level of OSD transparency. The level of adjustment is from 0 (solid) to 15 (clear). Default is 3.

3.6.4 System Settings – OSD Orientation

The OSD can be rotated 90°, or flipped horizontally or vertically.

3.6.5 System Settings – OSD Language

The OSD can be displayed in various languages. Default is English.

4 Maintenance

4.1 Preventive Maintenance

The window and exterior surfaces may be cleaned with isopropyl alcohol followed by distilled water rinse, applied with a soft cloth to avoid scratching the anti-reflective coating of the viewing window.

4.2 Troubleshooting (No Picture)

NO PICTURE:

- If the RED LED is lit, verify the FPD is powered on, verify that the signal cable is properly connected to the display and computer.
- Verify video source is on.

IMAGE PERSISTENCE:

- Image persistence is when a “ghost” of an image remains on the screen even after the monitor has been turned off. Unlike CRT monitors, LCD monitors’ image persistence is not permanent. To alleviate image persistence, turn the monitor off for as long as an image was displayed. If an image was on the monitor for one hour and a “ghost” of that image remains, the monitor should be turned off for one hour to erase the image.

IMAGE IS UNSTABLE, UNFOCUSED OR SWIMMING IS APPARENT:

- Signal cable (video) should be completely attached to the computer and display.
- Use the OSM Image Adjust controls to focus and adjust display by increasing or decreasing the FINE setting. When the display mode is changed, the OSM Image Adjust settings may need to be re-adjusted.

DISPLAY IMAGE IS NOT SIZED PROPERLY:

- Use the OSM Image Adjust controls to increase or decrease the H. SIZE setting.

5 CUSTOMER SERVICE CONTACT INFORMATION:

Customer Service and Technical Support
Phone: 610-404-5370
E-mail: customer.service@aydindisplays.com

6 Touch-Screen Driver Information

This information only applies to customers who have ordered a flat panel with a touch-screen installed.

Due to the constantly changing world of PC operating systems, it is recommended by the manufacturer of touch screens to download the latest driver and users manual to insure proper operation and system compatibility. You can locate the touch screen driver at the following web site:

Your newly purchased quality AMLCD display is integrated with one of the following Touch Systems. All three touch panels use an eGalax_e controller which use the same software driver. Before installing a new driver, please remove any old drivers to prevent software conflicts.

If you require further assistance, please contact Aydin Displays' Customer Service at 610-404-5370.

http://home.eeti.com.tw/DriverDownload.html

7 Vector 19 Specifications

Visual Performance Standard Brightness Unit:

Diagonal:	19-inch TFT Active-Matrix LCD
Active Display Area:	Horizontal: 376.32mm Vertical: 301.06mm
Backlight:	LED
Pixel Pitch:	0.294 mm
Luminance:	350cd/m^2 (typical)
Contrast Ratio:	1000:1 (typical)
Resolutions Supported:	

640x350	@ 70 Hz
640x480	@ 60-75 Hz
720x400	@ 70 Hz
800 x 600	@ 60-75 Hz
1024 x 768	@ 60-75 Hz
1152 x 900	@ 66-76 Hz
1280 x 1024	@ 60-75 Hz

Visual Performance High Brightness Unit:

Diagonal:	19-inch TFT Active-Matrix LCD
Active Display Area:	Horizontal: 376.32mm Vertical: 301.056mm
Backlight:	LED
Pixel Pitch:	0.294 mm
Luminance:	600cd/m^2 (typical)
Contrast Ratio:	2000:1 (typical)
Resolutions Supported:	

640x350	@ 70 Hz
640x480	@ 60-75 Hz
720x400	@ 70 Hz
800 x 600	@ 60-75 Hz
1024 x 768	@ 60-75 Hz
1152 x 900	@ 66-76 Hz
1280 x 1024	@ 60-75 Hz

Input Signal:

Video:	Analog input, 0.7 Vp-p/75 Ohms Digital input, DVI-D
Analog Video Sync:	Supports separate H & V sync, separate composite sync, and sync on green. Separate sync signals are TTL Level, positive or negative.
Sync on Green Video:	0.7 Vp-p and sync negative 0.3 Vp-p

Input Connectors:

Digital:	Single-Link DVI-D. Supports up to 160 MHz operation.
Analog R-G-B:	HD15 female (Standard VGA pin-out) Supports up to 135 MHz (SXGA 75 Hz)
Composite Video:	RCA Jack Supports NTSC, PAL or SECAM
S-Video:	4-Pin mini-DIN (Standard S-Video pin-out) Supports NTSC, PAL or SECAM

Environmental:

Operating Temperature:	0°C to 50°C
Storage Temperature:	-20°C to 60°C
Operating Humidity (Non-condensing):	10% to 90%
Storage Humidity: (Non-condensing):	10% to 90%
Operating Altitude:	0 to 12,000 ft
Storage Altitude:	0 to 40,000 ft
Shock:	30G, 11ms, ½ Sine
Vibration:	1G RMS 20-500HZ
Power Supply (AC input version):	Internal 120/240VAC Auto Ranging, 47 – 63 Hz
Power (AC version, standard brightness):	0.40A at 120VAC nominal, 24.2 W typical
Power (AC version, high brightness):	0.67 A at 120VAC nominal, 45.2 W typical
Power Supply (DC input version):	Internal 10-36 VDC
Power (DC version, standard brightness):	1.5 A at 24VDC nominal, 36W typical
Power (DC version, high brightness):	3.16 A at 24VDC nominal, 76 W typical
Weight:	Approx. 15.6lbs typical (AC version)
	Approx. 16.0 lbs typical (DC version)